

REMARKS

The Applicant wishes to thank the Examiner for the courtesy and cooperation shown while conducting the telephonic interview of Tuesday, September 20, 2005, with the Applicant's representatives. The substance of this Amendment was discussed during the interview. Reconsideration and allowance in view of the following remarks are respectfully requested.

Claims 7 – 8, 10, 13, and 18-31 remain pending for examination.

Rejections Under 35 U.S.C. §102(e)

Claims 7 – 8, 20-21, 25-26, 28, and 31 were rejected under 35 U.S.C. § 102(e) as being anticipated by Margulis et al. (U.S. Patent No. 6,223,149, hereafter "Margulis"). Independent Claims 7 and 20 have been amended to clarify the features of the invention as discussed during the interview. The current amendments are supported in the specification and do not constitute new matter.

In particular, during the interview the Examiner indicated that the current amendments to independent Claims 7 and 20 should be sufficient, at least, to overcome the outstanding rejection. Therefore, the Applicant respectfully requests that this rejection be reconsidered and withdrawn with regard to Claims 7 and 20, as well as their respectively dependent Claims 8, 10, 13, 18-19, and 21-31.

Rejections Under 35 U.S.C. §103(a)

Claims 10, 13, 18-19, 22-24, 27, and 29-30 were rejected under 35 U.S.C. §103(a) as being unpatentable over Margulis as modified by one of ordinary skill in the art and remain pending for examination. The Applicant respectfully traverses this rejection, and requests this rejection be reconsidered and withdrawn.

The Applicant has amended independent Claim 13 to recite:

A system comprising:
a plurality of redundant components; and,
a currently-active leader component elected from
the plurality of redundant components by way of a weak
leader election including a hot start lookup protocol
approach.

The Applicant respectfully submits that one of ordinary skill in the art would not be motivated to modify Margulis to specify the priority election approach as a weak leader election approach as is suggested by the rejection of Claim 13.

In particular, Margulis does not teach a hot-start lookup protocol as in currently amended Claim 13. From page 24 of the specification, the hot-start lookup protocol may include a set of live, or hot, spare nodes which may store lookup data. Each hot spare node performs refreshes of the lookup data, however, hot spare nodes do not respond to queries unless they are elected leader. If hot node fails and then recovers, the hot node may rejoin as leader without a weak-leader election taking place. This may result in multiple nodes concurrently becoming the leader because during the time the hot node is recovering another weak leader election may take place and another hot spare node may be elected the leader node. To prevent this situation from occurring, the hot-start lookup protocol includes a join method that each node executes before it may join the set of hot spare nodes. Before joining, the node multicasts a request to join the set of hot spare nodes. The leader node, should one have been elected, determines whether the recovered hot spare node may join. If a leader has already been elected, the leader will not allow the recovered hot spare node to join the set of hot spare nodes. Otherwise, the recovered hot spare node may rejoin as the leader.

Even more particularly, the modification of Margulis by one of ordinary skill in the art to specify the priority election approach as a weak leader election approach, as

suggested in the rejection, teaches away from currently amended Claim 13. Margulis does not teach or suggest a set of hot spare nodes, let alone that a hot node may rejoin the set of hot spare nodes as leader without a new priority election taking place. Even if Margulis were to teach that a hot node may rejoin the set of hot spare nodes as leader without a new priority election taking place, the cited functionality of Margulis in choosing the node with the longest recent connection time or highest priority may result in more than one leader node being elected. That is, should a hot node which has recovered rejoin the set of hot spare nodes as leader after a different hot node has been chosen leader while the hot node was offline, both the hot node and the different hot node will have declared themselves the leader. Tellingly, Margulis is silent on resolving a situation in which a hot node has rejoined as leader after a failure and a different hot spare node has been elected leader during the time the hot node was offline. Therefore, the deficiency of Margulis in failing to provide functionality to allow a hot node to rejoin the set of hot spare nodes as leader without a weak leader election is not resolved by modifying Margulis to specify the priority election approach as a weak leader election approach.

Accordingly, for at least the reasons set forth above, the Applicant respectfully submits that Claim 13 is patentable over Margulis. Further, due to its dependency on Claim 13, it is respectfully submitted that dependent Claim 19 is similarly distinguishable over Margulis.

Claims 10 and 18 depend from independent Claim 7, and Claims 22-24, 27, and 29-30 depend from independent Claim 20. Claims 10, 18, 22-24, 27, and 29-30 are allowable, at least, for the same reasons set forth above regarding the rejection under 35 U.S.C. §102(e). The Applicant respectfully submits that one of ordinary skill in the art would not be motivated to modify Margulis as suggested, and thus the Applicant requests that the rejection be reconsidered and withdrawn.

CONCLUSION

All objections and rejections having been addressed, it is respectfully submitted that the present application is now in condition for allowance. Early and forthright issuance of a Notice of Allowability is respectfully requested.

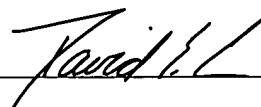
Respectfully Submitted,

Microsoft Corporation

Dated: October 7, 2005

Microsoft Corporation
One Microsoft Way
Redmond, WA 98052

By: _____


David S. Lee
Reg. No. 38,222
(425) 703-8092

CERTIFICATE OF MAILING OR TRANSMISSION
(Under 37 CFR § 1.8(a))

I hereby certify that this correspondence is being:

☒ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Mail Stop: AF: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

October 7, 2005
Date


Signature

Noemi Tovar